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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/528,731
Filing Date: March 22, 2005
Appellant(s): APPEL ET AL.

Ye Ren
Reg. No. 62,344
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 9/01/2010 appealing from the Office action mailed 1/27/2010.

(1) Real Party Of Interest

The real party of interest in this Appeal is the assignee of the present application, Siemens Aktiengesellschaft.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Claims cancelled: 1-11.

Claims withdrawn but not cancelled: NONE.

Claims pending: 12-22.

Claims allowed: NONE.

Claims rejected: 12-22

The claims on appeal are 12-22.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

6,542,081	TORCH	4-2003

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 12-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Torch (US 6,42,081).

Regarding Claim 12, Torch discloses *System And Method For Monitoring Eye Movement* that has the following claimed limitations:

Claimed monitoring a technical installation comprising using a sensor to acquire a physiological reaction of a human during an inspection tour of a portion of the technical installation is met by the system of Torch comprising a detection device (30) for detecting eyelid movement of an individual, wherein the detection device (30) is attachable to a conventional pair of eyeglasses (20) (see Col. 6 lns 38-67). The detection device (30) may be used to detect impending drowsiness of a user (See Col. 10 lns 46-55);

Claimed using an assessment tool to record reaction information acquired with the sensor and analyzing information recorded with the assessment tool to diagnose operational condition of a component of the technical installation is met by the system of Torch wherein the detection device (30) comprises a memory circuitry that stores streams of data for subsequent retrieval and analysis (see Col. 8 lns 52-63). The detection device is used to detect impending drowsiness of an individual with the

processing box (130) of the system to monitor the equipment of the onset of drowsiness. Thus the detection device (30) may be used to monitor operators of heavy equipment or factory machinery and control the equipment (see Col. 9 lns 23-32, Col. 10 lns 46-55), Col. 11 lns 1-20 and Col. 12 lns 59-65).

The system of Torch does not specifically state "technical installation". Rather, the system of Torch discloses a system for monitoring equipment. It would have been obvious to one of ordinary skill in the art to have readily recognized that the monitoring and controlling of the equipments can be implemented in a technical installation.

Regarding Claim 13, Torch discloses a system wherein the stream of data may be displayed along with other physiological data (e.g. heart rate, respiratory rate, other sleep polysomnographic [PSG] or electroencephalographic [EEG] variables) (see Col. 9 lns5-22).

Regarding Claim 14, Torch discloses a system wherein a camera on the frame monitors movement of the eye relative to the reference frame (see abstract).

Regarding Claim 15, the claim is interpreted and rejected as claims 1 stated above. The user wears a frame on their head and the person's eyes are monitored (see abstract).

Regarding Claim 16, Torch discloses a system wherein the detection device (30) and system (14) may be used to in a medical diagnostic, therapeutic, research or professional setting to monitor the wakefulness, sleep patterns and/or the effects of drugs, which may affect blink rate, blink velocity, blink duration, or PERCLOS of a patient or vehicle operator. The CPU produces stream of data which the transmitter

may send to a remote receiving and processing unit, which may store the stream of data in the memory circuitry for later retrieval and analysis by researchers, medical professional and safety personnel (See Col. 11 lns 21-40). Although the system of Torch does not specifically state that a database represents a history of human's physiological reaction, one ordinary skilled artisan would have readily recognize since the memory circuitry is used for later retrieval and analysis by researchers, a history of the individual is always stored.

Regarding Claim 17, the claim is interpreted and rejected as claim 12 stated above.

Regarding Claim 18, the claim is interpreted and rejected as 12 stated above.

Regarding Claim 19, the claim is interpreted and rejected as claim 13 stated above.

Regarding Claim 20, the claim is interpreted and rejected as claim 14 stated above.

Regarding Claim 21, the claim is interpreted and rejected as claim 16 stated above.

Regarding Claim 22, the claim is interpreted and rejected as claim 17 stated above.

(10) Response to Argument

In the appeal brief filed 9/01/2010, appellant provides the following arguments:

Arguments regarding claim 12, The appellant argues that Torch reference does not at all concern monitoring of a technical installation based on a physiological reaction of a human being. Rather, the reference concerns a system for monitoring movement of the human eye to monitor fatigue and other states of a person. Appellant also argues that the rejection takes words or phrases of the claims out context to read them on the prior art. Appellant argues that the claim 12 requires more and argues that since a person or "user" is not a technical installation, this piecemeal approach to finding the invention of claim 12 in Torch reference in error.

Appellant also argues the stored data of Torch is not acquired during "an inspection tour of a portion of the technical installation" as expressly required by claim 12. Nor is the stored data of Torch the same as the recited "reaction information" required by claim 12. Appellant argues, rather, at best, the stored data is merely data acquired in relation to eye movement or eye closure resulting from, for example fatigue. This is not the same as data associated with a physiological reaction occurring during an inspection of a technical installation.

Appellant also argues that above characterization stated on page 7 of the brief that the portion of the rejection is without citation and appears to be ungrounded.

Argument regarding Claims 13 and 19, appellant argues that the rejection incorrectly reads the claim recitation and cites disclosure of merely displaying physiological data.

Argument regarding Claims 14 and 20, Appellant argues the claim 14 further distinguishes over Torch by requiring that a camera device is used in the step of using

an assessment tool to record the human's sight including changes in said human's directions of sight. The appellant argues that the monitoring of eye movement is not the same as recording the human sight.

Argument regarding Claims 16 and 21, Appellant argues that the memory circuitry of Torch does not contain physiological reaction data.

Argument regarding Claim 22 Appellant argues that there is no reference to a failure, process disturbance, and normal operation of a component of the technical installation.

RESPONSE

Response to Arguments regarding Claims 12 and 18, Examiner respectfully disagrees with Appellant's assertion that the Torch reference does not concern monitoring of a technical installation based on a physiological reaction of a human being. Examiner also disagrees with Appellant's assertion that the rejection takes words or phrases of the claims out of context to read them on the prior art. The Appellant is arguing for a rejection not stated in the FINAL rejection. Appellant asserts that a person or a "user" is not a technical installation. However, Examiner never stated nor indicated that the person or "user" is a technical installation. The claim comprises a sensor to acquire physiological reaction of a human, using an assessment tool to record reaction information acquired with the sensor and analyzes the information recorded with the assessment tool to diagnose an operational condition of a component of the

technical installation. Torch discloses a system wherein a sensor acquires physiological reaction of a human being, via a detection device (30) attached to a pair of conventional glasses used to monitor the motion of the eyelids to determine the drowsiness. The system then uses that information to determine the relative state of drowsiness or alertness of the operator and said information is used to control heavy equipment, which satisfies the limitations recited in the claims. Therefore, contrary to the Appellant's assertion that the rejection states that Torch teaches that a person a technical installation, Torch discloses heavy machinery that is a technical installation. Torch discloses a human being monitored while operating heaving machinery or equipment.

Examiner also respectfully disagrees with Appellant's assertion that the stored data of Torch is not acquired during "an inspection tour of a portion of the technical installation" as expressly required by claim 12. As stated above in the rejection, the user is monitored by the detection device (30) to determine the state of drowsiness or alertness of the user, while operating heavy equipment. The detection device (30) comprises a memory circuitry that stores streams of data for subsequent retrieval and analysis. The analysis itself is used to determine the state of drowsiness or alertness of the user while operating the machine. Appellant is arguing that this is not a physiological response to an "inspection." The recitation of the limitation that the physiological detected during an inspection tour is not relevant. The prior art disclose an apparatus that senses the physiological reaction of the operator the machine. And based on the sensed data determines the state of the machine. Therefore, even though Torch does not explicitly disclose that system operates during an “inspection

tour", one of ordinary skill in the art at the time of the invention would have known that the system operates during an "inspection tour" as Torch discloses as it operates. In essence, Torch does not limit his apparatus to operation during an "inspection tour", so his apparatus would operate during an inspection tour just as it would operate as if there was no "inspection tour." Furthermore, the recitation of claim 1 that the method operates during an "inspection tour" is intended use which is not further limiting. Moreover, an argument can be made that the operator wearing the detection device managing a machine in tandem is the portion of the technique. Since the system of Torch monitors the person wearing the detection device while operating the machinery, the argument made also meets the limitation "diagnose an operational condition of a component of the technical installation." The component of the technical installation is the operator in tandem with the machine he/she is operating. Therefore, Appellant's arguments are not persuasive and the rejection to the claims stands.

Contrary to Appellant's argument, the FINAL rejection properly cites the passages in which Torch discloses not only monitoring of a individual during operation of a machinery (and other various applications) (see Col. 9 lns 23-32, Col. 10 lns 46-55 and Col. 12 lns 18-35), but also operation of the equipment (See Col. 9 lns 23-33 and Col. 12 lns 59-67). Therefore, the reference is with citation and is properly grounded. Thus the Appellant's arguments are not persuasive and the rejection to claim 12 stands.

Response to arguments regarding Claims 13 and 19, Torch discloses appellant's claimed limitation. Appellant claims that the physiological reaction includes ***one of*** a neuritic current and changes in the neuritic current, and blood pressure and changes in

blood pressure, pulse rate and changes in pulse rate, pulse strength and changes in pulse strength, galvanic skin reflex and changes in galvanic skin reflex, and breathing patterns. Torch discloses a system wherein other physiological conditions can be monitored in a user using the machinery and the machinery can be controlled based on the monitoring of physiological conditions in the user using the machine (See Col. 9 lns 24-33). Therefore, appellant's arguments are not persuasive and the rejection to claims 13 and 19 stands.

Response to arguments regarding Claims 14 and 20, The orientation of the eyeball in the human eye socket determines the direction of sight. So by monitoring the orientation of the eyeball in the eye socket, the apparatus is able to monitor the direction of sight. In addition, Appellant claims in claim 14, changes in human's direction of sight. To the extent that the system of Torch monitors the movement of the eye relative to the reference frame, the apparatus of Torch is detecting changes in direction of sight. Moreover, as previously explained in response to other arguments, Torch discloses an apparatus that monitors the movement of the eyelid. The movement of the eyelid determines a direction of sight. When the eyelid is closed, the direction of sighed have directed more downward. When the direction is more fully open, the direction of sight can be elevated. So the monitoring of the motion of the eyelids is another manner in which Torch discloses monitor changes in the direction of sight. Therefore, the argument is not persuasive and the rejection stands.

Response to arguments regarding Claims 16 and 21, Torch discloses the monitoring of the motion of the eyelid and the storage of the data monitored. The

originally monitored and stored data is the data of the motion of the eyelid. The motion of the eyelid is a physiological reaction and it is stored in memory. This feature of Torch is sufficient by itself to meet the limitation recited by the claim. Nevertheless, Torch also discloses his system analysis the data stored in memory to determine from the eyelid data the relative state of drowsiness or alertness of the operator of machinery. And a person state of drowsiness and alertness is also a physiological reaction. So Torch disclose at least two separate ways that the data stored in memory qualifies as a physiological response sufficient to satisfy the limitations recited in the claim. Therefore, appellant's arguments are not persuasive and the rejection to claims 16 and 21 stands.

Response to arguments regarding Claim 22, the claim states that the "human physiological reaction is assigned ***one of*** a failure, process disturbance, and normal operation of a component of the technical installation. The claim does not require all of these parameters. The system of Torch teaches monitoring a user using a detection device to determine the alertness or drowsiness of the user operating the machine. And if that determination is made, the equipment is controlled. This meets the claimed limitation "normal operation of a component of the technical installation." Therefore, appellant's arguments are not persuasive and the rejection to claim 22 stands.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Edny Labbees

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